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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/463,958	01/17/2002	Ake Lignell	REF/LIGNELL/551	6995

7590 10/21/2002
Bacon & Thomas
Fourth floor
625 Slater Lane
Alexandria, VA 22314-1176

EXAMINER

COE, SUSAN D

ART UNIT	PAPER NUMBER
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1654

DATE MAILED: 10/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

FILE COPY

Office Action Summary

Applicati n N .

09/463,958

Applicant(s)

LIGNELL, AKE

Examin r

Susan Coe

Art Unit

1651

-- The MAILING DATE f this communicati n appears n the c ver she t with th corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____ .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____ .
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1</u> . | 6) <input type="checkbox"/> Other: . |

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DETAILED ACTION

1. The preliminary amendment filed May 6, 2002 has been received and entered.
2. Claims 1-7 have been cancelled.
3. Claims 8-14 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rendered indefinite by the use of parentheses. The use of parentheses is considered indefinite because it cannot be determined when the enclosed limitation is or is not to be included in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Pat. Appl. No. 57-105145 A.

Applicant's claims are drawn to a method of treating dyspepsia using xanthophylls.

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JP '145 teaches using a feed composition that contains xanthophyll and citric acid (see English abstract). Citric acid is an antioxidant.

6. Claims 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by European Pat. Appl. No. 0 770 385 A1.

EP '385 teaches a method of treating or preventing ulcers caused by stress using astaxanthin (see page 5, lines 50 and 51). A symptom of ulcers is indigestion, so in treating ulcers in the manner taught by EP '385, the practitioner would have inherently treated a person with indigestion. Thus, EP '385 is considered to teach the claimed invention.

EP '385 teaches that the astaxanthin can be isolated from *Haematococcus* sp. (see page 4, lines 13-17). The astaxanthin can contain antioxidants such as ascorbic acid (see page 5, line 27). The astaxanthin can also be administered in a food or beverage that would contain carbohydrates (see page 6, lines 25-33). The astaxanthin is administered in numerous dosages that encompass the dosage limitations of applicant's claim 14 (see page 6, lines 7-11).

7. Claims 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 98/37874

WO '874 teaches a method of treating or preventing inflammation of the gastrointestinal tract caused by *Helicobacter* infection using astaxanthin (see page 2, lines 20-29). A symptom of GI inflammation is indigestion, so in treating inflammation in the manner taught by WO '874, the practitioner would have inherently treated a person with indigestion. Thus, WO '874 is considered to teach the claimed invention.

WO '874 teaches using astaxanthin esterified with fatty acids isolated from *Haematococcus* sp. The astaxanthin is administered with carbohydrates and antioxidants (see

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page 3). The astaxanthin is administered is 0.01 to 10 mg per kg body weight (see page 4, lines 13-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '145 in view of WO '874.

As stated above, JP '145 teaches using xanthophylls to treat dyspepsia. However, JP '145 does not specifically teach using astaxanthin as the xanthophyll. As discussed above, WO '874 teaches using astaxanthin to treat infections that cause indigestion. Based on this teaching by WO '874, a person of ordinary skill in the art would reasonably expect that astaxanthin could beneficially be used as the xanthophyll in the method taught by JP '145. Thus, an artisan of ordinary skill would have been motivated to use astaxanthin to treat dyspepsia in the method taught by JP '145.

9. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Coe whose telephone number is (703) 306-5823. The

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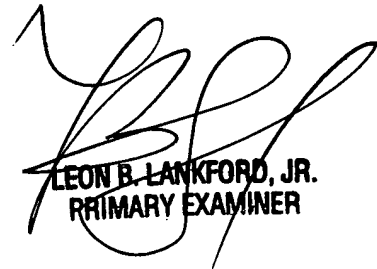
examiner can normally be reached on Monday to Thursday from 8:00 to 5:30 and on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn, can be reached on (703) 308-4743. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

SDC

September 30, 2002



LEON B. LANKFORD, JR.
PRIMARY EXAMINER